AMENDMENTS TO THE SPECIFICATION

Please amend page 2 of the Summary of the Invention as follows:

Prior to [0006] delete the words "Summary of the Invention".

[0006] Delete

[0007] Delete

[0008] Delete

[0009] Delete

Please replace paragraph [0063] with the following amended paragraph:

[0063] A representation of a "noisy" array of pixel values is shown in Fig. 8a. Shown in Fig. 8a is an array of pixel values 210-2, a max peak tracking line ~~213-2~~ 212-2 and a min peak tracking line ~~212-3~~ 213-2 which may be determined as previously described in connection with Figs. 6a-6c. Array of pixel values 210-2 comprises several major directional changes characterized by peaks such as peak 214M and several minor directional changes characterized by peaks such as peak 214m. In analyzing arrays of pixel values having the general characteristics of the array shown in Fig. 8a, the inventor found that whereas minor directional changes proximate either of the max or min peak tracking lines 212-2 or 213-2 are most likely attributable to noise, minor directional changes proximate the transition region of the array, such as those characterized by peaks such as peaks 214m-1 and 214m-2 are more likely attributable to bar and space transitions of a bar code than noise. Bar codes that have very thin bar or space transitions may produce signal characterized by minor transition region peaks such as peaks 214m-1 and 214m-2. In order to decode bar codes having the general characteristics of that shown in Fig. 8a, "grey band" boundary lines may be established in association with array 210-2 as is indicated by grey band lines 412-1 and 413-1 of array 210-2. Grey band lines 412 and 413 are conveniently established as a percentage of max and min peak tracking lines 212 and 213, as will be explained more fully herein. Within the grey band region, control circuit 40, for digitizing array 210

utilizes a peak sensing threshold substantially sensitive to directional changes. For example, within the grey band delimited by lines 412-1 and 413-1, control circuit 40 may establish a peak sensing level so that a peak is recorded when a pixel value increases and then decreases by more than predetermined small number of levels (such as 1 to 5 levels) of the binary scale. In the example of Fig. 8a, control circuit 40 may subject areas of array 210-2 outside of the grey band e.g. the areas including peaks 214M to peak detection using a first digitizing peak sensing threshold, and areas of array within the grey band e.g. the areas including peak 214m-1 to peak detection using a second peak sensing threshold that is more sensitive to directional changes than the first peak sensing threshold.

Please amend paragraph [0089] of the Detailed Description of the Drawings as follows:

[0089] In the alternative, and in accordance with another aspect of the invention, the transition position between a pair of successive peaks can be derived, in part, from peak characterizing data of an array 210. Specifically a transition position can be derived, in part, based on a relationship between the average high peak value and average low peak value described herein. In the peak characterizing data corresponding to the array of Fig. 9b, the average high peak value is 92% and the average low peak value is 2%. In accordance with the invention, a transition position bias line can be established at a percent position between tracking lines 212 and 213 equal to the percentage value midway between the average high peak value and the average low peak value. By this formula, a bias line may be established at 47% of the tracking lines in the example described in connection with Fig. 9b. The transition positions can then be biased toward the established bias line. Thus, in the example of Fig. 9b the transition position between peaks 214-1 and 214-2 would be biased upward slightly since the original midpoint value at 40% of tracking lines 212-2, 212-3 is less than the bias line value of 47% of the tracking lines values. Biasing the transition position by a factor that depends on the average high peak and average low peak values increases the accuracy of the digitization. In calculating a transition position for all successive pairs of peaks of an array of pixels, control circuit 40 develop data that

represents the relative widths of bars and spaces of a bar code symbol. From this data, as is well known, a message encoded by a symbol can be decoded. According to its major aspects and broadly stated the invention is a digitization method wherein a set of image data is subjected to preliminary processing for determination of at least one digitization parameter which is then utilized for digitation of the set of image data. The digitization method therefore varies depending upon features of the image data presently being subjected to digitization. In accordance with the invention, an array of pixel values, once generated, is subjected to preliminary processing for developing peak characterizing data. In particular, the peak characterizing data is developed in an exemplary embodiment of the invention by subjecting the array to iterative peak detection processing utilizing incrementally aggressive peak sensing thresholds. At least one digitizing parameter is then derived from the peak characterizing data. In an exemplary embodiment of the invention, a digitizing peak sensing threshold and "grey band" positions are developed based on the peak characterizing data. Utilizing the at least one determined digitizing parameter, edge positions for the array of pixel values are determined, and the message represented by the array of pixel value is decoded. These and other details, advantages and benefits of the present invention will become apparent from the detailed description of the preferred embodiment herein.